

cytes in the presence of a cough, however mild, will warrant a strong suspicion of pertussis. In the presence of an epidemic the use of whooping cough vaccine as a preventive measure is justifiable and unquestionably it confers a period of immunity. Just how long this period is we cannot say. Other measures that have proven of value in treatment are ether in the muscle or mixed with oil and injected into the rectum, and x-ray exposures of the chest during the whooping stage.

In addition to those already mentioned there is a long list of diseases of children that are holding the attention of the scientific investigator, a full discussion of which is not the purpose of this paper.

Two or three may be discussed briefly.

Among the more recent studies of interest in epilepsy are those of Peterman, Cuneo, and Robertson. These workers have demonstrated that a tendency toward alkalosis will precipitate convulsions, and an artificially produced acidosis will control the attacks. Starvation therefore is a most effective treatment of epilepsy, because among other changes in the metabolism starvation produces an acidosis.

TREATMENT OF PURPURA HEMORRHAGICA BY THE USE OF THE MERCURY VAPOR QUARTZ LIGHT

Sooy and Moise have found that the blood platelets increased from 108,000 per cm. to 546,000 per cm. in twelve days. Treatment by transfusion in these cases is not of lasting benefit, and splenectomy in the acute cases is attended by a very high mortality. If these results are confirmed by others we may feel that at last we have something of benefit for this hitherto baffling condition.

I shall mention but one other condition and that is, sinus disease in children. More than three years ago Marriott and Claussen were able to prove to their own satisfaction that sinus infection in children is a rather frequent condition. The nose and throat specialist, on the other hand, has been very slow to take the definite stand on this question that we would wish for. The existence of empyema of the maxillary antrum is thoroughly established in the minds of most physicians, but such is not the case with infections of the sphenoid and ethmoid sinus in young children. In my own experience I have found that the average nose and throat surgeon will often postpone drainage of the mastoid antrum in infants long after what to me seems a clear indication.

The pediatricist who observes his patients carefully is better able to decide when operative measures are indicated than the surgeon who is called in and sees the child but once or twice. This I believe to be true not only of sinus disease, but also of many other conditions.

We as guardians of the health of children entrusted to our care are shirking our duty and belittling our specialty when we allow others to make important decisions that we should make for ourselves.

SOME REMARKS ON THE ART AND SCIENCE OF UROLOGY*

By H. A. ROSENKRANZ, M. D.
Los Angeles

THIS paper, intended to be for the good of urology and the art and science of medicine as a whole, is addressed not only to the urological members, but to all physicians of the regular school of medicine, that school which, founded upon a thorough course of education seeks to diagnose and heal the sick by every known method that possesses any value whatsoever, and to the governing boards of our state and county medical societies.

Inasmuch as there has been so much confusion wrought in the public mind during the past few years on account of the ever increasing crops of pulse diagnosticians, herbalists, spinalists, psychospiritists, electronists, occultists, electric belt revivalists, etc., it behooves the regular school of medicine to serve the public to the extent of setting forth some fundamental facts. It is only by publicity that we can give the laity the information that they are seeking and that they are entitled to. If we do not explain the fundamentals of disease and health and our relation thereto to the public, the public will be served as it has been in the past by false and sectarian propaganda, thoroughly and aggressively organized on a business and paying basis with the result that the art and science of regular medicine will recede into a weakly defensive position overshadowed and encroached upon by cultists.

Advertising—The arguments that I have most frequently heard against advertising are:

1. "I have all the patients that I can take care of, haven't you? Why try to get more?" It is this attitude of self-sufficient indifference that is partly to blame for our cult-ridden condition. Without building up a large practice, how can a physician acquire that amount of experience and resources necessary for the organization and maintenance of an institution where research may be carried out, medical science advanced, and the public most efficiently and economically served?

Argument No. 2. "Doctors can't guarantee their services hence shouldn't advertise." Those of you who have tried to extract a guarantee from an automobile dealer or repair man will readily classify the form of mind that advances this gesture.

Argument No. 3. "The quacks indulge in publicity, so we shouldn't do it." Would you interdict the sale of the Bible because someone else is circulating dime novels?

Argument No. 4. "It isn't nice to advertise— isn't done." Perhaps the moving-picture industry sensed this very bad taste when it discontinued its "advertising department" and substituted a "publicity department." The name was changed and everybody was happy. A constructive truth needs no apology. Life and health are important subjects. We physicians have assumed a responsibility in treating the sick who come to us, and we also owe to the public such information as will make most available and effective the methods of preserving health

* Chairman's address, Urology Section, at the Fifty-Sixth Annual Session of the California Medical Association, April 25-28, 1927.

and life. Our shrinking modesty has resulted too often in the patient being forced to obtain his information on these subjects from irregulars whose blatant, subtle and destructive propaganda is always available. The cultists have long been awake to the effectiveness of organized publicity. Physicians know that a *very large percentage* of patients who are treated by sectarian healers believe that they are being treated by members of the regular medical profession. The prefix of "Doctor" or "Physician and Surgeon" leads most patients to believe that the healer is a member of the regular school. That most constructive bill that was vetoed by the predecessor of our present governor, a bill that made it obligatory for every practitioner of a healing art, science, cult or sect to display upon his office door the name of the school of healing that he represented so that patients might not be misled, was intended to serve the public. It was fair to all. Of course the cultists who were masquerading as regular doctors objected and the governor, perhaps believing that their political power was greater than that of the regular school, vetoed the bill. Until a few months ago our classified telephone directory made no distinction between regular and irregular practitioners, and a surprisingly large number of patients have told me that they have been misled thereby. I venture to say that out of one thousand people who have some kind of an idea of what an osteopath or a chiropractor is, not one knows what the name orthopedist represents, or even knows that regular medicine has a specialty that treats diseases of the bones, joints, and nerves.

Ours is an old and glorious heritage, ever seeking the new in science and invention to apply to the healing of mankind. Are we not discriminating against the laity as well as against ourselves when we permit the public to give us the same classification and rating as the irregulars who have decreed that one minute of their education is equal to one hour of ours and whose object in taking up their cult, it is only reasonable to presume, is to obtain a *quick* license to heal everybody; a license made legal partly because of our lack of organized and aggressive publicity. The public should once and for all know that regular medicine never has objected and never will object to the recognition of any practitioner who has given adequate time to the study of anatomy, physiology and disease. The method of treatment will take care of itself provided the student understands the aforementioned fundamentals. Those cultists with whom healing is a business stress *treatment*, knowing that the unthinking majority delight in having something new, bizarre and mysterious done for them, or rather to them.

An ancient philosopher once said that there were three roads, an extreme right, an extreme left, and a middle course, the latter being the one of choice. Cannot we inaugurate a middle road of dignified publicity, thereby maintaining a higher degree of order within our own ranks and clearing up the confusion that exists in the minds of the laity? Inasmuch as the lack of readily available information has tended to direct a large proportion of the sick into irregular camps, I would suggest that each county medical society serve the public by maintain-

ing a publicity bureau as outlined below, and that the existence of such a service be given widespread publicity—*paid advertising*—in the press. Information concerning physicians might be tabulated as follows:

1. Name, address, and telephone numbers.
2. Specialty, if any.
3. Premedical education.
4. Graduate of ——— Medical School. Date ———.

The foregoing information should be handed out or mailed for the asking, absolutely without comment. A similar list of the members of each specialty should likewise be available. Telephone or any other form of incomplete or uncontrollable information should be disallowed.

Advancements in Urological Practice—Inasmuch as most urological patients who require surgery are well past middle life (one-third of all men past the age of 50 develop a tumor of the prostate) urologists have had to extend themselves to develop a technique that would insure success in those cases that in years gone by were looked upon as comparatively poor risks. In the olden days when the general surgeon was doing the bulk of prostatic surgery the mortality ranged around 85 per cent and higher. The urologist has gradually and painstakingly developed a system of preoperative, operative and postoperative technique whereby this mortality has been reduced to between 1 and 3 per cent. In order to achieve this remarkably low figure the urologist has had to keep abreast not merely of all that is good in urology, but has had to safeguard his patients against such complications as pneumonia, heart weakness, etc. Every phase of the patient's health and disease must be diagnosed, considered and acted upon. The urologist who refuses to operate during an acute or recent (even though mild) bronchitis, who gives his patient a prophylactic course of respiratory vaccine, who assures himself on the morning of operation that the patient has not developed a bronchitis during the night, who doesn't do a prostatectomy upon a patient unless that patient is feeling fit and who employs preparatory digitalization to safeguard his patient's heart, and who insofar as is possible judges the cardiac reserve as well as the kidney function and blood chemistry, and who doesn't wear out his patient's heart by flooding him with fluids after operation—this urologist may look forward with optimism to a complete cure of his patient from the distressing symptoms of prostatism, and, other things being equal, he will have the lowest mortality rate.

Vaccines—Controlled data on the use of vaccines in strictly urological conditions is rare and, with the exception of gonorrheal arthritis, iritis, etc., the results have not been exceptionally noteworthy, and even in the aforementioned conditions the vaccines must take a subordinate position to other procedures, such as injections of the vasa. I do, however, use vaccines a great deal. Their use is based on one of the soundest principles of medicine. They can do no harm, and probably do more good in urological conditions than we realize. My experience during the past two years has converted me from a skeptic to a strong advocate of respiratory vaccines,

not only from the standpoint of cure, but of prophylaxis against pneumonia, bronchitis, and rhinitis. Dr. Alexander Lambert[†] in checking his thoroughly controlled pneumonia cases over a period of four years sets forth the remarkable result of 42 per cent mortality in groups of cases in which vaccines had not been used as compared with a mortality of 5.8 per cent in those cases that had received respiratory vaccine promptly. These figures show a saving of 86 per cent in the number of lives which might have been lost if vaccines had not been used.

Heart—In our enthusiasm about kidney function and blood chemistry I feel that we have perhaps not given due consideration to the myocardium. I believe that, other things being equal, the surgical risk varies directly as the tone of the heart muscle and inversely as the amount of damage that has been done to the heart cells by either an acute infection such as carbuncle, or by any chronic infection such as pus kidney, rectal fistula, syphilis. In prostatectomy cases a low kidney function may not be dangerous provided the heart reserve, the bronchial condition and blood chemistry are adequate. I have operated upon a patient who during a two weeks' preoperative course had a combined pthalein output varying from 12 to 15 per cent two hours and fifteen minutes after intravenous injection. He recovered as uneventfully as any patient that I have had. On the other hand, I operated upon a patient for renal calculus plus a small pyonephrosis, a man with an equally good blood chemistry and a pthalein output of 38 per cent, whose convalescence was not so happy because his ureter being blocked by a stone, the pus germs and toxins had been drained into the blood stream to poison and weaken his heart muscle. *Every case* in which there has been drainage of infection into the blood stream should remind us that we may be dealing with an impaired cardiac reserve.

Two-Stage Operation—I would advocate the two-stage operation for prostatectomies not only in those cases in which I have recommended it in previous papers, and in those complicated with a low renal function, but also in those cases in which there is a suspicion of weakened heart muscle. I also favor a two-stage operation in such operations as nephrectomy complicated with a large perinephritic abscess or pyonephrosis. At the first operation we drain the pus and give the heart as well as the other body cells an opportunity to regain their tone.

Anesthesia—I am leaning more strongly to spinal anesthesia every year in bladder and prostatic cases. In my experience it has contributed much to the safety and freedom from complications of these operations. Medicine of the Southland owes a debt of gratitude to Dr. Granville MacGowan, who, among many other important advances, introduced and popularized spinal anesthesia in the Southwest.

Hemorrhage—In my paper read before this section last year I detailed what had proven to be an effective routine in the prevention of hemorrhage. I have made some additions to the list which I believe are of decided value. This routine which has

made most cases of prostatectomy an almost bloodless operation is as follows:

1. For four days preceding operation one cup jello b. i. d.
2. For three days preceding operation calcium lactate gr. XX t. i. d.
3. On evening preceding operation:
 - (a) Fibrogen, two ampoules each in a different place subcutaneously over abdomen.
 - (b) One ampoule calcium lactate intravenously.
4. One and one-half hours before going to surgery:
 - (a) Thyroid extract, gr. 2 to 3 per mouth.
 - (b) Fibrogen, one ampoule subcutaneously.
 - (c) Calcium lactate, one to two ampoules intravenously.
5. Three-quarters of an hour before going to surgery, 2 cc. of oral fibrogen orally.
6. Just before going to surgery, pituitrin one ampoule.

Free Hospital Service—Inasmuch as county hospitals and other charitable hospitals pay their orderlies, cooks, nurses, interns, and residents a salary, the attending staff, which bears a large degree of the responsibility and heavy work, should receive a remuneration. There is an ever growing tendency, especially in eastern hospitals, to recognize the services of the attending staff in this manner. I believe that those governing boards that do not already pay their attending staffs would cheerfully grant their staffs this consideration if the matter were presented to them. The attending staffs have contributed much of their valuable time gratis; they have been so busy serving the public that they have not had time to consider their position in this matter.

Nursing—The regular salaried hospital nurse or orderly is of greater assistance to the urologist in caring for his patients than is the private nurse who is not especially trained in urology, and hardly any private nurses are so trained. There is a growing demand for clean-cut urologically trained male nurses. It would seem that arrangements might be made whereby the nursing curriculum would provide for specialization in this line of work. The patients themselves complain of the lack of urological training of most nurses.

Physiotherapy—A great deal of urological treatment consists of physiotherapy as exemplified by cystoscopy, passage of dilators and catheters, stone crushing, massage, quartz lamp and various arrangements for the production of heat and the various modalities of the galvanic, faradic and sinusoidal currents. Last Friday an old patient reappeared with a chronic prostatitis and requested that I use the hollow quartz ultra-violet ray applicator upon him, because it had given him marked relief once before. I had forgotten that I had used it upon him. My experience with the various modalities of electricity and with the quartz lamp leads me to the conclusion that we have only scratched the possibilities of these physiotherapeutic agents. Physiotherapy has in the past been accused of laying too much stress upon treatment and not enough upon fundamental knowledge of disease. Happily now, however, this stigma no longer ob-

[†] Professor of Clinical Medicine at Cornell.

tains. That stigma has been assumed in a large measure by the dispensers of our old friend the electric belt, a *fifty-dollar* instrument that will produce a blister or a sweat and relieve pain by counter-irritation, all laudable effects when indicated and all readily obtainable for the price of *fifty cents* for a hot bath, a Spanish fly plaster or a bottle of Sloan's liniment. We need an active section on physiotherapy in our state and county medical societies to maintain and direct our enthusiasm in this very important adjunct to therapy.

Closing—These very necessary and enjoyable state meetings are tense, crowded, diverting, and complicated affairs. They are properly dedicated largely to pure scientific progress. Would it not be fitting and proper for our section to have one interim meeting yearly, arranged over a week-end in some quiet central rendezvous like the Hotel Samarkand where we might with greater leisure inaugurate such measures of action and progress as will give added impetus to the advancement of urology?

SPONTANEOUS RUPTURE OF A HYDRO- NEPHROTIC SAC SECONDARY TO URETERAL STONE *

By CHARLES PIERRE MATHÉ, M. D.

AND

GEORGE F. OVIEDO, M. D.

San Francisco

(From the Department of Urology, St. Mary's Hospital,
San Francisco)

DISCUSSION by J. C. Negley, Los Angeles; L. P. Player,
San Francisco; H. A. Rosenkranz, Los Angeles.

ALTHOUGH traumatic rupture of the kidney is not uncommon, spontaneous rupture of that organ is relatively infrequent. The latter usually occurs in kidneys presenting chronic nephritis, tuberculosis, abscess formation, tumor, or infarct. In reviewing the literature up to 1924, Reschke¹⁴ pointed out that there were only a few cases of ruptured hydronephrosis reported up to that time. Rupture of a hydronephrotic sac secondary to the back pressure caused by a calculus presenting urinary extravasation, but without hematuria is exceedingly rare. Henline⁶ reported one such case presenting a huge extravasation seen very late and diagnosed at autopsy. The rupture extended through the upper primary calyx and was secondary to the back pressure caused by a calculus in the right ureter.

PATHOLOGY

In 1856 Wunderlich²² described what he termed spontaneous apoplexy of the renal capsule. He called attention to the fact that perirenal hemorrhage occurred and could be the result of spontaneous rupture of the kidney. Hartmann⁵ and Tuffier¹⁷ reported ruptures due to malignant tumor formation. Doll³ and Szenes¹⁶ are of the opinion that chronic nephritis acts as a predisposing cause for spontaneous rupture of the kidney. Wade,¹⁹ Lippens,¹¹ Lăwen,¹⁰ Connell,² Grasmann,⁴ and Thomas¹⁸ state that rupture can also occur in kidneys presenting tuberculosis, acute focal infection with abscess formation, hemophilia, infarct, hydronephrosis or polycystic kidney. All investigators are

agreed that spontaneous rupture does not occur in kidneys without antecedent pathology.

Küster^{8,9} collected ten cases of spontaneous rupture of the kidney in 30,000 autopsies and pointed out that the parenchyma of a distended kidney ruptures easily. Herzog⁷ observed sixteen cases in 7805 autopsies. That the parenchyma ruptures more easily than the pelvis is demonstrated by the greater number of the former cases reported. Back pressure into the kidney from incomplete drainage increases the intrapelvic pressure. An increase in the hydraulic pressure within through the blood vessels may then cause the organ to burst. At this time of increased pressure the slightest injury, such as a slight blow over the loin or indirect trauma, such as falling on the feet or buttocks, muscular action, etc., may throw the kidney against the transverse process of the vertebrae causing rupture of a previously pathologic kidney (Morris¹²). As the parenchyma is the weaker portion of the kidney, it usually gives way, causing a rent of the capsule. However, when the pelvic wall has been weakened by chronic inflammation it may rupture, as in the case herein reported. The rupture of the pelvis is seldom accompanied by perirenal hemorrhage because there are no end arteries to be severed. Therefore extravasation of urine without hemorrhage is characteristic of a ruptured pelvis or ureter. Azzurrini¹ emphasizes the prominence of hemorrhage in nontraumatic rupture of the parenchyma. Orr and Ewing¹³ report a remarkable case in an Arab woman, in which a stone ruptured through the kidney lodging in the loin causing a spontaneous wound from which pus, but no urine, exuded. Watson and Cunningham²¹ go so far as to state that rupture of the parenchyma, although frequently accompanied by perirenal hemorrhage, rarely causes extravasation of urine.

Although traumatic rupture of the kidney is fairly common spontaneous rupture of that organ is more or less infrequent. The latter usually occurs in kidneys presenting tumor, abscess formation, tuberculosis or chronic nephritis. In our case a rupture occurred in a hydronephrotic sac secondary to back pressure caused by a stone. As this condition is relatively rare, and as there are not many such cases reported in the literature, we herewith present this case.

Mr. A. B., age 32, purchasing agent. Referred by Dr. Edward Salomon. Admitted to the urological service of St. Mary's Hospital, March 26, 1924.

In November, 1923, the patient experienced a severe, sudden, sharp pain in the right lumbar region, nonradiating in character. This disappeared in two days without any treatment. It was not accompanied by nausea and vomiting, nor by any urinary symptoms. He did not notice the passage of any stone or gravel after the attack. He was well until March 19, 1924, when he developed an excruciating, continual, sharp pain in the right lumbar region radiating to the right groin. It was accompanied by nausea and vomiting, abdominal distention and cold perspiration of the body. There was also slight dysuria and nycturia. For some time prior to the attack he had noticed that the urine was somewhat cloudy, but it never had the appearance of containing blood. He gave no history of direct trauma nor indirect injury. Temperature varied between 100 and 102.2 degrees F. and the pulse from 100 to 120.

Physical Examination—Head, heart, and lungs were negative. Blood pressure systolic 110, diastolic 68. In the

* Delivered before the Urological Section of the California Medical Association.